



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Biostatistics-I							
Course Code		BİS501		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	6	Workload	152 ( <i>Hours</i> )	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		The importance of biostatistics, data presentation, summarizing, sample selection, basic knowledge on statistical comparisons.							
Course Content		Definitions and Terminology, Data Collection Method; Compilation of Information, Graphics; Means, Distribution dimensions, Probability, Binomial Probability and Distribution; Poisson distribution and probability, sampling; Hypothesis Testing, Normal Distribution; Normal Distribution and z-test; t Distribution and Test; Analysis of Variance (one-way, two way); Chi-Square Distribution and the Test; Non-Parametric Tests; Regression Analysis; Correlation Analysis							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration					
Name of Lecturer(s)		Prof. İmran KURT ÖMÜRLÜ							

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

### Recommended or Required Reading

1	Dawson, B., Trapp, R. G., & Greive, A. (2004). Basic & clinical biostatistics (Vol. 4). New York: Lange Medical Books/McGraw-Hill.
2	Özdamar, K. (2001). SPSS İle Biyoistatistik, Kaan Kitapevi. Baskı. Eskişehir.
3	Gallin, J. I., & Ognibene, F. P. (Eds.). (2012). Principles and practice of clinical research. Academic Press.
4	Çelik, Y. (2011). Nasıl? Biyoistatistik Bilimsel Araştırma SPSS.
5	Daniel, W. W., & Cross, C. L. (2018). Biostatistics: a foundation for analysis in the health sciences. Wiley.
6	Sokal, R. R., & Rohlf, F. J. (1987). Introduction to biostatistics. New York.
7	Pagano, M., & Gauvreau, K. (2018). Principles of biostatistics. Chapman and Hall/CRC.
8	Norman, G. R., & Streiner, D. L. (2008). Biostatistics: the bare essentials. PMPH USA.

Week	Weekly Detailed Course Contents	
1	Theoretical	Basic definitions and concepts
	Practice	Applications with package programs
2	Theoretical	Editing and graphically analyzing data
	Practice	Applications with package programs
3	Theoretical	Descriptive statistics
	Practice	Applications with package programs
4	Theoretical	Probability, Binomial probability and distribution
	Practice	Applications with package programs
5	Theoretical	Poisson distribution and probability
	Practice	Applications with package programs
6	Theoretical	Hypothesis testing
	Practice	Applications with package programs
7	Theoretical	Normal distribution and z-test
	Practice	Applications with package programs
8	Intermediate Exam	Midterm exam
9	Theoretical	t distribution and t tests
	Practice	Applications with package programs
10	Theoretical	One-way analysis of variance
	Practice	Applications with package programs
11	Theoretical	Non-parametric tests



11	Practice	Applications with package programs
12	Theoretical	Non-parametric tests
	Practice	Applications with package programs
13	Theoretical	Chi-square distribution and test
	Practice	Applications with package programs
14	Theoretical	Regression and correlation analysis
	Practice	Applications with package programs
15	Theoretical	Literature review and discussion
	Practice	Literature review and discussion
16	Final Exam	Final exam

**Workload Calculation**

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Assignment	1	10	0	10
Quiz	14	2	1	42
Midterm Examination	1	20	2	22
Final Examination	1	20	2	22
Total Workload (Hours)				152
[Total Workload (Hours) / 25*] = <b>ECTS</b>				6

\*25 hour workload is accepted as 1 ECTS

**Learning Outcomes**

1	To be able to Understand the Importance of Statistical Methods in Studies
2	To be able to Understand the Points to Be Considered in Designing the Experimental
3	To be able to Decide Enough Sample Holdings
4	To be able to Prepare Analysis of Research Data
5	To be able to Interpret the Results of Analysis

**Programme Outcomes (Public Health Nursing Master)**

1	PO 1. Student has the current theoretical and practice knowledge in Master's degree in Public Health Nursing field based on his previous learning in bachelor's degree, student realizes the knowledge, deepens and uses it.
2	PO 2. Student brings solutions to the issues which require expertise and is related to the Public Health Nursing. Student solves the problem, he/she evaluates the results obtained and applies as needed
3	PO 3. To be able to create new information by integrating different disciplinary in Public Health Nursing field
4	PO 4. Student shares and discusses his/her knowledge, current developments and his/her own researches systematically with groups from or outside of his/her field in written, verbal, or visual way
5	PO 5. Student follows based on evidence practices and makes researches creating evidence about professional application in his/her own field
6	PO 6. Student manages researches about his/her field independently or in a team
7	PO 7. Student has information on statistics, uses related soft wares efficiently, chooses correct statistical methods while making researches, has the skills to calculate and comment.
8	PO 8. Student can write report of the researches he/she made or participated and publishes it in an internationally accepted refereed journal or presents it in academic meetings
9	PO 9. Student can make strategy and policy in topics related to Public Health Nursing, comments practice plans, and evaluates obtained results in scientific and ethical frame
10	PO 10. Student makes verbal and writing communication using one foreign language at least B2 level in European language portfolio
11	PO 11. To be able to comprehend the importance of ethical principles and ethical rules for the individual and society and behave ethic

**Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High**

	L1	L2	L3	L4	L5
P1	2	2	3	3	3

